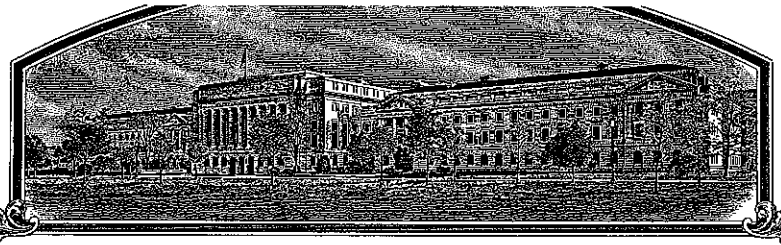
200600276

No.



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

University of Georgia Research Foundation, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

WHEAT, COMMON

'951079-2E31'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this fifth day of March, in the year two thousand and seven.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

BUREAU OF ENGRAVING AND PRINTING

REPRODUCE LOCALLY. *Include form number and date on all reproductions* — Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER
University of Georgia Research Foundation, Inc.

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME
GA951079-2E31

3. VARIETY NAME
951079-2E31

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
University of Georgia Research Foundation, Inc.
627 Boyd Graduate Studies Research Center
Athens, GA 30602-7411

5. TELEPHONE *(include area code)*
(706)542-1404

6. FAX *(include area code)*
(706)542-3837

FOR OFFICIAL USE ONLY

PVPO NUMBER
200600276

FILING DATE
August 23, 2006

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*
Corporation

8. IF INCORPORATED, GIVE STATE OF INCORPORATION
Georgia

9. DATE OF INCORPORATION
November 17, 1978

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*
John Ingle
Robert Fincher
University of Georgia Research Foundation, Inc.
627 Boyd Graduate Studies Research Center
Athens, GA 30602-7411

FEES RECEIVED

FILING AND EXAMINATION FEES:
$ 4382.00
DATE 8/23/2006

CERTIFICATION FEE:
$ 768.00
DATE 2/01/2007

11. TELEPHONE (Include area code)
(706) 542-1404

12. FAX (Include area code)
(706) 542-3837

13. E-MAIL
jingle@uga.edu

14. CROP KIND *(Common Name)*
Wheat (common)

16. FAMILY NAME *(Botanical)*
Gramineae

15. GENUS AND SPECIES NAME OF CROP
Triticum aestivum

17. IS THE VARIETY A FIRST GENERATION HYBRID?
☐ YES ☒ NO

18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (*OPTIONAL*)
☐ YES ☒ NO
IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR COMMERICALIZATION. _____

19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of Variety
d. ☒ Exhibit D. Additional Description of the Variety *(Optional)*
e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
f. ☒ Exhibit F. Declaration Regarding Deposit
g. ☐ Voucher Sample *(3,000 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
g. ☒ Filing and Examination Fee ($4,382), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)*
☐ YES *(If "yes", answer items 21 and 22 below)* ☒ NO *(If "no", go to item 23)*

21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES?
☐ YES ☐ NO
IF YES, WHICH CLASSES? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☐ NO
IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS.
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED
(If additional explanation is necessary, please use the space indicated on the reverse.)

23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?
☐ YES ☒ NO
IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

24. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?
☐ YES ☒ NO
IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
Robert R. Fincher			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Robert R. Fincher			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Chief Licensing Officer	8/03/2006		

(See reverse for instructions and information collection burden statement)

ST-470 (02-06) designed by the Plant Variety Protection Office using Word 2003.

200600276

EXHIBIT A
UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC.
APPLICATION FOR 951079-2E31
ORIGIN AND BREEDING HISTORY

951079-2E31 winter wheat (*Triticum aestivum* L.) was developed and released by the Georgia Agricultural Experiment Stations in 2006. 951079-2E31 was derived from the cross GA 881130 / 'Gore'. The pedigree of 'Gore' is Stacy / Coker 797; the pedigree of GA 881130 is KS8998 / FR 81-10 // Gore. KSH8998 was developed from the cross of a hard wheat with Triticum tauchii to transfer Hessian fly resistance (H13). FR 81-10 was selected due to its resistance to leaf rust (Lr37Yr17) from the cross: Novisad 138/4/(4) Aegilops ventricosa/ Triticum persicum/2/ Marve*3/3/Moisson.

The cross of 951079-2E31 was made in the spring of 1995. The F1 was grown during the spring of 1996. The population was advanced from the F2 through F5 generations using the pedigree method of breeding with individual spikes selected for resistance to leaf rust (caused by *Puccinia recondita* {Roberge ex Desmaz}, powdery mildew (caused by *Erysiphe graminis* DC. F. sp. *tritici* Em. Marchal), and septoria nodorum blotch (caused by Stagonospora nodorum {Berk} Castellani & E.G. Germano). Spikes were harvested, threshed individually and planted in single one (1) meter headrows and were advanced to the next generation during the F2:3-, F3:4-, and F4:5-derived lines at Plains, Georgia. 951079-2E31 is the F5: derived head row selected and advanced to Breeder Seed which was produced in the F10 generation.

951079-2E31 was evaluated as GA951079-2E31 for agronomic performance in nursery plots in 2001-2002, Georgia state trials at five locations from 2003 to 2005, and in the Uniform Southern Soft Red Winter Wheat Nursery at about 30 locations in 2004.

An increase strip of 951079-2E31 was planted in 2003 from a small increase plot and was rogued thoroughly for aberrant types. Seeds from this increase strip was planted in an increase block (2 acres) of 951079-2E31 in 2004 at the Foundation Seed Farm and rogued to remove variants. Seed from this large block was used for Breeder Seed for 951079-2E31 in 2005. 951079-2E31 has been observed for 3 generations of reproduction and during seed increase period and is stable and uniform. The variant consists of less than 1 bearded head per 1,000 heads and 1 taller head per 2,500 heads.

This Breeder seed of 951079-2E31 was provided to the Georgia Seed Development Commission and will be the source of future seed multiplications. Breeder seed of 951079-2E31 will be maintained by the Georgia Agricultural Experiment Station, The University of Georgia – Griffin Campus, Griffin Georgia 30223-1797.

EXHIBIT B
UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC.
APPLICATION FOR 951079-2E31
STATEMENT OF DISTINCTNESS

951079-2E31 is a soft red winter wheat, apically awnletted, and white chaffed. 951079-2E31 is most similar in appearance to 'Roberts'; however, 951079-2E31 has phenol test color of fawn whereas 'Roberts' has a phenol test color of dark brown – black.

REPRODUCE LOCALLY. Include form number and date on all reproductions. Form Approved OMB NO 0581-0055

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 2.5 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY
Wheat (*Triticum* spp.)

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
University of Georgia Research Foundation, Inc.	GA951079-2E31	951079-2E31

ADDRESS *(Street and No. or RD No., City, State, Zip Code and Country)*

627 Boyd Graduate Studies Research Center
Athens, GA 30602-7411

FOR OFFICIAL USE ONLY

PVPO NUMBER

200600276

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

Place the appropriate number that describes the varietal character of this variety in the boxes below. Place a zero in the first box (e.g., [0][9][9] or [0][9]) when number is either 99 or less or 9 or less respectively. Data for quantitative plant characters should be based on a minimum of 100 plants. Comparative data should be determined from varieties entered in the same trial. Royal Horticultural Society or any recognized color standard may be used to determine plant colors; designate system used: _____. Please answer all questions for your variety; lack of response may delay progress of your application.

1. KIND:

[1]
1 = Common
2 = Durum
3 = Club
4 = Other (Specify) _____

2. VERNALIZATION:

[2]
1 = Spring
2 = Winter
3 = Other (Specify) _____

3. COLEOPTILE ANTHOCYANIN:

[1] 1 = Absent 2 = Present

4. JUVENILE PLANT GROWTH:

[2] 1 = Prostrate 2 = Semi-Erect 3 = Erect

5. PLANT COLOR: (boot stage)

[2]
1 = Yellow-Green
2 = Green
3 = Blue-Green

6. FLAG LEAF: (boot stage)

[2] 1 = Erect 2 = Recurved
[2] 1 = Not Twisted 2 = Twisted
[1] 1 = Wax Absent 2 = Wax Present

7. EAR EMERGENCE:

[ ][9][5] Number of Days (Average)
[0][1] Number of Days Earlier Than * AGS 2000
Same As *
[ ][ ] Number of Days Later Than *

**Relative to a PVPO-Approved Commercial Variety Grown in the Same Trial*

8. ANTHER COLOR:

[1] 1 = Yellow 2 = Purple

200600276

9. PLANT HEIGHT: (from soil to top of head, excluding awns)

[0][9][1] cm (Average)

[7][.][5] cm Taller Than USG 3209 *

Same As _____ *

[5][.][1] cm Shorter Than PIO 26R61 *

10. STEM:

A. ANTHOCYANIN

[1] 1 = Absent 2 = Present

B. WAXY BLOOM

[2] 1 = Absent 2 = Present

C. HAIRINESS (last internode of rachis)

[1] 1 = Absent 2 = Present

D. INTERNODE

[1] 1 = Hollow 2 = Semi-Solid 3 = Solid

[4] Number of Nodes

E. PEDUNCLE

[3] 1 = Erect 2 = Recurved 3 = Semi-Erect

[1][8] cm Length

F. AURICLE

[1] Anthocyanin: 1 = Absent 2 = Present

[1] Hair: 1 = Absent 2 = Present

11. HEAD: (At Maturity)

A. DENSITY

[2] 1 = Lax
2 = Middense (Laxidense)
3 = Dense

B. SHAPE

[2] 1 = Tapering
2 = Strap
3 = Clavate
4 = Other (Specify) _____

C. CURVATURE

[1] 1 = Erect
2 = Inclined
3 = Recurved

D. AWNEDNESS

[2] 1 = Awnless
2 = Apically Awnletted
3 = Awnletted
4 = Awned

12. GLUMES: (At Maturity)

A. COLOR

[1] 1 = White
2 = Tan
3 = Other (Specify) _____

B. SHOULDER

[4] 1 = Wanting 2 = Oblique
3 = Rounded 4 = Square
5 = Elevated 6 = Apiculate
7 = Other (Specify) _____

C. SHOULDER WIDTH

[1] 1 = Narrow
2 = Medium
3 = Wide

D. BEAK

[1] 1 = Obtuse
2 = Acute
3 = Acuminate

E. BEAK WIDTH

[1] 1 = Narrow
2 = Medium
3 = Wide

F. GLUME LENGTH

[3] 1 = Short (ca. 7 mm)
2 = Medium (ca. 8 mm)
3 = Long (ca. 9 mm)

G. WIDTH

[3] 1 = Narrow (ca. 3 mm)
2 = Medium (ca. 3.5 mm)
3 = Wide (ca. 4 mm)

H. PUBESCENCE

[1] 1 = Not Present
2 = Present

5

200600276

13. SEED:

A. SHAPE

[2] 1 = Ovate
2 = Oval
3 = Elliptical

B. CHEEK

[1] 1 = Rounded
2 = Angular

C. BRUSH

[1] 1 = Short
2 = Medium
3 = Long

[1] 1 = Not Collared
2 = Collared

D. CREASE

[1] 1 = Width 60% or less of Kernel
2 = Width 80% or less of Kernel
3 = Width Nearly as Wide as Kernel

[1] 1 = Depth 20% or less of Kernel
2 = Depth 35% or less of Kernel
3 = Depth 50% or less of Kernel

E. COLOR

[3] 1 = White
2 = Amber
3 = Red
4 = Other (Specify) _____

F. TEXTURE

[2] 1 = Hard
2 = Soft
3 = Other (Specify) _____

G. PHENOL REACTION (See Instructions)

[2] 1 = Ivory
2 = Fawn
3 = Light Brown
4 = Dark Brown
5 = Black

H. SEED WEIGHT

[4][2] g/1000 Seed (whole number only)

I. GERM SIZE

[1] 1 = Small
2 = Midsize
3 = Large

14. DISEASE: PLEASE INDICATE THE SPECIFIC RACE OR STRAIN TESTED

(0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

[ ]	Stem Rust (*Puccinia graminis* f. sp. *tritici*)	[2]	Leaf Rust (*Puccinia recondita* f. sp. *tritici*)
[2]	Stripe Rust (*Puccinia striiformis*)	[ ]	Loose Smut (*Ustilago tritici*)
[ ]	Tan Spot (*Pyrenophora tritici-repentis*)	[ ]	Flag Smut (*Urocystis agropyri*)
[ ]	Halo Spot (*Selenophoma donacis*)	[ ]	Common Bunt (*Tilletia tritici* or T. *laevis*)
[ ]	*Septoria nodorum* (Glume Blotch)	[ ]	Dwarf Bunt (*Tilletia controversa*)
[ ]	*Septoria avenae* (Speckled Leaf Disease)	[ ]	Karnal Bunt (*Tilletia indica*)
[ ]	*Septoria tritici* (Speckled Leaf Blotch)	[1]	Powdery Mildew (*Erysiphe graminis* f. sp. *tritici*)
[ ]	Scab (*Fusarium* spp.)	[ ]	"Snow Molds"
[ ]	"Black Point" (Kernel Smudge)	[ ]	Common Root Rot (*Fusarium*, *Cochliobolus* and *Bipolaris* spp.)
[ ]	Barley Yellow Dwarf Virus (BYDV)	[ ]	Rhizoctonia Root Rot (*Rhizoctonia solani*)
[2]	Soilborne Mosaic Virus (SBMV)	[ ]	Black Chaff (*Xanthomonas campestris* pv. *translucens*).
[ ]	Wheat Yellow (Spindle Streak) Mosaic Virus	[ ]	Bacterial Leaf Blight (*Pseudomonas syringae* pv. *syringae*)
[ ]	Wheat Streak Mosaic Virus (WSMV)	[ ]	Other (Specify) _____
[ ]	Other (Specify) _____	[ ]	Other (Specify) _____
[ ]	Other (Specify) _____	[ ]	Other (Specify) _____
[ ]	Other (Specify) _____	[ ]	Other (Specify) _____

15. INSECT: (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (where needed)

[2]	Hessian Fly (*Mayetiola destructor*)	[ ]	Other (Specify) _____
[ ]	Stem Sawfly (*Cephus* spp.)	[ ]	Other (Specify) _____
[ ]	Cereal Leaf Beetle (*Oulema melanopa*)	[ ]	Other (Specify) _____

6

20060276

15. INSECT: (continued) (0 = Not Tested 1 = Susceptible 2 = Resistant 3 = Intermediate 4 = Tolerant)

PLEASE SPECIFY BIOTYPE (Where Needed)

- ☐ Russian Aphid (*Diuraphis noxia*)
- ☐ Greenbug (*Schizaphis graminum*)
- ☐ Aphids
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____
- ☐ Other (Specify) _____

16. ADDITIONAL INFORMATION ON ANY ITEM ABOVE, OR GENERAL COMMENTS:

200600276

EXHIBIT D
UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC.
APPLICATION FOR 951079-2E31
ADDITIONAL DESCRIPTION OF 951079-2E31

951079-2E31 is a common soft red winter wheat, *Triticum aestivum* L. bred and developed by The University of Georgia, Georgia Agricultural Experiment Stations and developed by Jerry W. Johnson. 951079-2E31 is a medium maturing, high yielding, excellent test weight, apically awnletted wheat with resistance to current races of leaf rust, *Puccinia recondita* (Roberge ex Desmaz) and resistant to biotypes (biotype B, C, D, E, L) of Hessian flies (*Mayetiola destructor* {Say}), and susceptible to powdery mildew (*Erysiphe graminis* DC. f. sp. *tritici* Em. Marchal) of the Pm 4 Comp, USDA-ARS isolates 1 and 7. 951079-2E31 is resistant to leaf rust races, MCDS, KBBG, TCTD, TNRF, TLGK, TLBJ, and THBL.

Milling and baking quality characteristics of 951079-2E31 are rated as acceptable for soft red winter wheat use by the USDA – Soft Wheat Quality Laboratory, Wooster, Ohio. Information on the milling and baking quality characteristics is also included in a quality report. Additional information is presented in attachment to the Exhibit.

ATTACHMENT I

APPLICATION FOR APPROVAL OF X CULTIVARS ___ ASSOCIATE CULTIVARS

(Please check appropriate type of application)

1. Crop: Wheat

2. Experimental no. or name: GA 951079-2E31

3. Pedigree and history: GA 951079-2E31 is GA 881130 / Gore. The final cross was made in the spring of 1995. Individual spike selections were made in the F2 to F5 generations at Plains, GA. The pedigree method of breeding was used to advance the segregating populations. In 2000 a headrow was harvested for preliminary evaluations. Agronomic evaluations were conducted from 2003 to 2005 in the Small Grain State Performance Trials for Georgia. It was evaluated in 2004 in the Uniform Southern Wheat Nursery.

4. Description: GA 951079-2E31 is an early-medium maturing, white chaffed, medium-tall height line. It matures on average 3 days earlier than AGS 2000 in Georgia. It is resistant to current biotypes of Hessian fly and is resistant to races of leaf rust and stripe rust in Georgia. Juvenile plants of GA 951079-2E31 exhibit a semi-erect growth habit. Plant color is green with yellow color anthers. Spikes are strap, middense, and awnleted. Glumes are medium in length and width, and have oblique shoulders with acute beaks. Kernels are red, soft, and oval.

5. Station(s) where developed: Griffin Campus

6. Participating scientist(s): Jerry Johnson and G. David Buntin

7. In what respect is the new cultivar superior to the cultivar now in use? or reasons for proposing release as an associate cultivar.

GA 951079-2E31 is a high-yielding, medium maturing, and good test weight soft red winter wheat line (Tables 1, 2, 4, and 5). It also has resistance to biotype L of Hessian Fly (Table 7).

It is equal to AGS 2000 in grain yield and test weight (Tables 1, 2, 4 and 5).

It has better stripe rust resistance than AGS 2000 (Table 3 and 6).

8. Method of propagation: Seed

9. Amount of breeder seed stocks available (if applicable): 60 bu.

10. Amount of foundation seed stocks available (if applicable): 2000 bushel in summer of 2005.

11. Amount of cutting or bud material available for vegetative propagated material for nursery distribution (if applicable):

12. Is there likely to be unusual difficulty encountered in the production of any class of seed stocks? Explain. No

13. Three suggested names for the cultivar: GA951079-2E31

14. Name approved by plant cultivar and germplasm release committee: GA951079-2E31

15. Form of intellectual property protection: Plant Variety Protection

16. Is a royalty assessment recommended: X Yes __ No

GA951079-2E31

200600276

RECOMMENDED BY:

A. _____
Originating Scientist

B. _____
Department Head

C. _____
Assistant Dean

D. _____
Chairperson, GAES Plant Cultivar and Germplasm Release Committee

E. _____
Associate Dean for Research

APPROVED:

_____

Dean and Director
College of Agricultural & Environmental Sciences

11

Table 1. Average Performance of GA 951079-2E31 and Checks in Elite Nursery Multilocations*, 2002.

Entry	Yield bu/A	Test Wt. lbs/bu	Head Date Julian	Height inches
GA951079-2E31	54a	59	94	37
AGS 2000	55a	58	96	37
PIO 26R61	48b	59	96	38

* Tifton, Plains, Griffin, Quincy, FL, Belle Mina, AL, Starksville, MS

Table 2. Average Performance of GA 951079-2E31 and Checks in Multi-State* Performance Trials (GAWN), 2003.

Entry	Yield bu/A	Test Wt. lbs/bu	Head Date Julian	Height inches
GA 951079-2E31	75a	58	100	34
AGS 2000	76a	57	103	35
McCormick	74a	56	105	31

*Florida, Georgia, Arkansas, Louisiana, Virginia

Table 3. Average Agronomic Traits of GA 951079-2E31 and Checks in Multi-State* Performance Trials (GAWN), 2003.

Entry	Lodging 0-9	P. Mildew 0-9	Leaf Rust 0-9	Stripe Rust 0-9
GA 951079-2E31	2.2	1.8	0.8	0.0
AGS 2000	1.4	1.0	0.5	3.0
McCormick	0.5	1.1	1.4	0.0

*Florida, Georgia, Arkansas, Louisiana, Virginia

Table 4. Average Performance of GA 951079-2E31 and Checks in Georgia's State Performance Trials in Georgia, 2-Yr Ave, 2003-2004.

Entry	Yield bu/A	Test Wt. lbs/bu	Head Date Julian	Height inches
GA 951079-2E31	75.5a	59	91	36
AGS 2000	78.6a	60	94	37
PIO 26R61	76.6a	60	95	37

Table 5. Average Performance of GA 951079-2E31 and Checks in Uniform Southern Soft Red Winter Nursery, 2004.

Entry	Yield bu/A	Test Wt. lbs/bu	Head Date Julian	Height inches
GA 951079-2E31	71.5b	58	113	36
AGS 2000	75.7a	57	114	37
PIO 26R61	72.0b	57	117	38

21 locations in the Southern Region

Table 6. Average Agronomic Traits of GA 951079-2E31 and Checks in Uniform Southern Soft Red Winter Nursery, 2004.

Entry	Lodging 0-9	Leaf Rust 0-9	Stripe Rust 0-9	P. Mildew 0-9
GA 951079-2E31	3.7	0.9	0.5	0.9
AGS 2000	2.0	0.8	4.5	1.6
PIO 26R61	1.2	1.3	0.5	2.0

21 locations in the Southern Region

Table 7. Evaluation of lines to biotypes of Hessian Fly, USDA-ARS Lab, Purdue University, 2004.

Entry	Biotype B R:S	Biotype D R:S	Biotype E R:S	Biotype L R:S
GA 951079-2E31	20-0	14-0	15-0	17-0
AGS 2000	1-14	0-16	2-13	0-18
PIO 26R61	0-14	0-14	12-0	0-14

LEAF RUST

20060276

St. Paul, MN

Reactions produced by NA race*

		CBMT**	MCDS	MCRK	KBBG	TCTD	TNRJ	TLGK	TFBJ	THBJ	Postulated Genes***
1	AGS 2000	;2-3	;	3	;	;	;	;	1c	;1c	10,11,26
2	USG 3209	;	;	3	;	3	;1c	;	;	;	11,26
3	Pioneer 26R61	;	;1c	3	;1c	3-	;	;	1c	;1c	11,26
4	McCormick	;	;	;	;1c	;	3	-	3	-	24,+
5	AR910-9-1	;	3	3	3;	3	3;	-3	3	;1c3	+
6	NC99-13022	-	;	-	;	;	3	;	;	;	11,24
7	VA00W-526	2;	3	3	;	3	3	-3	3	3	1,+
8	VA98W-335	;	;	;1c	;	3	;	;	;	;	2a,11,26
9	VAN98W-342	2;	;1c	;	;	3	;	;	;	;	2a,11,26
10	VA98W-631	;1c	;-3	;1c3	2+	3	;1c2	;1c	3,2c	23;	+
11	LA95600CA22-1	;	;	;	;	;	3	;	;	;	11,24
12	AR93035-4-1	;-3	;1c	23;	;	;	3	;1c	23;	;1c2	+
13	SC980890	-3	;	;	;	;	3	;	3	;	24,+
14	B980582	;	;	;	;	;	3	3	;	;	9,+
15	B980696	3	23;	3;1c	;	;	23;	2c;	2	;1c3	+
16	B980416	;	23;	3;1c	;	3	;2c	;2c	23;	;1c-3	2a,11,26
17	MD 71-5	;1c	;1	;	;	3	;	;	;	;1c	2a,11,26
18	TX 00D1626	;1c	;	;	;1c	3	3	;1c2	;	;	2a,11
19	TN04-01	;	;	;	;	3	;1c	;	;	;	2a,11,26
20	AW D00-6383	3-;	3	3	;	;2c	3	3	3	3	1,10
21	AW D00*6874	;	;	;	;	;	3	3	;	;	9,+
22	AW D00*6847	;	;1c	3	;	;	2;	3	;	;	1,10,18
23	NC00-15332	;	;	;	;	;	;2c	;	;	;	+
24	NC00-15385	;	;	;	;	;	;2c	;2c	;	;	+
25	NC00-15389	-3	;	;	;	;	;	;1c	;	;	+
26	MD 11-52	;1c	;1c	3	;	;	;	;	;	;	18,26,+
27	MV 5-46	;1c	23;	;1c-3	;	3	;1c	;	3-1	3	2a,26
28	LA9585D17-2	;	;	;	;	;	;	;	;	;	+
29	LA925C104-1-3-B-4	;	;	;	;	;	3	3	;	;	9,+
30	B980006	3	3	3	3	3	3	3	3	3	0
31	G/F 951208-2E35	;	;	;1c	;	;	;	;1c	;	;	+
32	G/F 951208-2E35	3-;	;	3-1c;	;	;	;	;1c	;	;1c	+
33	G/F95652-2E56	;	;1c	;	;	;	;1c	;1c	;1c	;	+
34	F/G 95195	;	;	;1c2	;	;2	;2	;2c	;	;1c	+
35	F/G 95195	;	;	;	;	;	;	;1c	;	;	+
36	F/G 951216-2E26	;	;	;1c	;	;-3	;1c	;1c	;	;	+
37	SC996284	;	;1c	3	1c	;	23;	23;	1c	;	+
38	SC996289	;	;1c	3	;1c	3	3;	3;	;	;1c	11,+
39	G39015	;	;	;	;	;	;	;	;	;	+
40	G39033	;	;	;	;	;	;	;	;	;	+
41	P92226E2-5-3-2	;	;	3	;	3	3;	;1c-3	3	3	26,+
42	P961341A3-2-2	;1c	3-;	;	;	3-;	;	;	;1c	;1c	+

*Single genes tested: = 1,2a,2c,3,3Ka,9,10,11,14a,16,17,18,24,26,30,B

**Virulence formula:

CBMT=3,3ka,10,14a,18,30,B
MCDS=1.3.3ka,10.14a.17.26,B
MCRK=1,3,3ka,10,11,14a,18,26,30
KBBG=2a,2c,3,10
TCTD=1,2a,2c,3,3ka,11,14a,17,26.30
TNRJ=1,2a,2c,3,3ka,9,10,11,14a,24,30
TLGK=1,2a,2c,3,9,10,11,14a,18
TFBJ=1,2a,2c,3,10,14a,24,26
THBJ=1,2a,2c,3,10,14a,16,26

***+=Lr gene(s) present but unable to identify with these Lr virulence combinations

Note: MCDS, MCRK, TNRJ and THBJ were the most commonly found races in the U.S. in 2003.

200600276

POWDERY MILDEW

Blacksburg VA

		PM 04 COMP
1	AGS 2000	2MR
2	USG 3209	0R
3	Pioneer 26R61	0R
4	McCormick	0R
5	AR910-9-1	3MS
6	NC99-13022	0R
7	VA00W-526	0R
8	VA98W-335	0R
9	VAN98W-342	0R
10	VA98W-631	34S/1R
11	LA9560CA22-1	4S
12	AR93035-4-1	4S
13	SC980890	23IMS
14	B980582	4S
15	B980696	34S
16	B980416	34S
17	MD71-5	0R
18	TX00D1626	4S
19	TN04-01	34MS
20	AW D00-6383	4S
21	AW D00*6874	4S
22	AW D00*6847	23I
23	NC00-15332	3MS
24	NC00-15385	23I
25	NC00-15389	23MSI
26	MD 11-52	0R
27	MV 5-46	12MR
28	LA9585D17-2	23IMS
29	LA925C104-1-3-B-4	23IMS
30	B980006	4S
31	G/F 951208-2E35	4S
32	G/F 951079-2E31	34S
33	G/F 95652-2E56	4S
34	F/G 95195	23IMS
35	F/G 951216-2E14	12MR
36	F/G 951216-2E26	4S
37	SC996284	0R/TRS
38	SC996289	0R
39	G39015	23MSI Treated seed
40	G39033	4S Treated seed
41	P92226E2-5-3-2	34S
42	P961341A3-2-2	0R/S

GROWTH STAGE / DATE 12/18/2003

			PM 04 COMP
pm differential	Chancellor	-	4S
pm differential	Axminster	Pm 1	0R
pm differential	C68-15*7/CI 13836	Pm 1	0R
pm differential	Ulka	Pm 2	23INS
pm differential	Asosan	Pm 3a	4S
pm differential	Chul	Pm 3b	2I
pm differential	Sonora*	Pm 3c	34MS
pm differential	C68-15*6/Sonora	Pm 3c	34MS/0R
pm differential	C68-15*6/Trit	Pm 3c	4S/0R
pm differential	Michigan Amber	Pm 3f	4S
pm differential	Yuma	Pm 4a	4S
pm differential	C68-15*5/Yuma	Pm 4a	4S/1R
pm differential	C68-15*5/Kapli	Pm 4a	34MS
pm differential	Ronos	Pm 4b	4S
pm differential	Hope	Pm 5	2I?
pm differential	C747*	Pm 6	4S
pm differential	Transec*	Pm 7	4S
pm differential	C68-15*7/Transec	Pm 7	0R
pm differential	Federation/Kavkaz	Pm 8	2I?
pm differential	Amigo	Pm 17	0R/2plts S
pm differential	C68-15*5//747/Amigo	Pm 17	4S

12/18/2003

200600276

Raleigh NC

Isolate

		1	2	3	4	5	6	7	8	9	10	11	12	13	**Probable *Pm* gene(s)**
1	AGS 2000	I	R	S	S	S	S	R	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
2	USG 3209	R	R	S	R	R	R	R	R	R	S	S	R	I	3c, 3e, 3f, 5a, 6, 7, 8, 9
3	Pioneer 26R61	R	R	S	R	R	R	R	R	R	R	R	S	R	2a, 3f, 5a, 7, 8, 9
4	McCormick	R	R	R	R	R	R	R	R	R	S	S	I	S	3c, 7, 8, 17
5	AR910-9-1	S	S	S	S	S	R	S	R	S	I	S	S	R	3f, 5a, 7
6	NC99-13022	R	I	S	R	I	I	R	R	I	S	S	S	S	7, 8
7	VA00W-526	R	R	R	R	I	R	R	R	I	S	S	I	S	3c, 7, 8, 17
8	VA98W-335	R	R	I	R	R	R	R	R	R	R	R	R	R	no virulent isolates
9	VAN98W-342	R	R	R	R	R	R	R	R	R	R	R	R	R	no virulent isolates
10	VA98W-631	R	R	R	R	R	R	R	R	R	S	S	R	R	3f, 4b, 5a, 6, 7, 8, 9, 17
11	LA9560CA22-1	S	S	S	S	S	S	S	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
12	AR93035-4-1	S	S	S	S	S	S	S	S	S	S	S	S	S	no avirulent isolates
13	SC980890	S	S	S	S	S	S	S	S	S	S	S	S	S	no avirulent isolates
14	B980582	S	S	S	S	S	S	S	R	S	S	S	I	R	3e, 3f, 5a, 6, 7
15	B980696	S	S	S	S	S	S	S	R	S	S	S	S	S	7
16	B980416	S	S	S	S	S	S	S	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
17	MD71-5	R	R	R	R	R	R	R	R	R	R	R	R	R	no virulent isolates
18	TX00D1626	S	S	S	S	S	S	S	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
19	TN04-01	S	S	S	S	S	S	S	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
20	AW D00-6383	S	S	S	S	S	S	S	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
21	AW D00*6874	S	S	S	S	S	S	S	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
22	AW D00*6847	R	R	R	S	S	S	S	S	S	S	S	S	S	no avirulent isolates
23	NC00-15332	S	I	S	S	S	S	S	R	R	I	S	S	S	7
24	NC00-15385	S	R	S	S	I	S	R	R	I	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
25	NC00-15389	S	S	I	S	S	S	S	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
26	MD 11-52	S	S	R	S	S	I	S	R	R	R	R	S	R	3f, 5a, 7
27	MV 5-46	R	R	R	R	R	S	R	R	R	R	R	R	R	1b, 3c, 3e, 3f, 5a, 6, 8, 9
28	LA9585D17-2	S	S	S	S	S	S	S	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
29	LA925C104-1-3-B-4	S	S	S	S	S	S	S	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
30	B980006	S	S	S	S	S	S	S	R	S	S	S	S	S	7
31	G/F 951208-2E35	R	R	R	R	R	R	R	R	R	R	R	R	R	no virulent isolates
32	G/F 951079-2E31	S	R	R	R	R	R	S	R	R	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
33	G/F 95652-2E56	S	S	S	S	S	S	S	S	S	S	S	S	S	no avirulent isolates
34	F/G 95195	S	S	R	S	S	S	S	R	R	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
35	F/G 951216-2E14	S	S	S	S	S	S	S	S	S	S	S	R	R	3e, 3f, 5a
36	F/G 951216-2E26	S	S	S	S	S	S	S	R	S	R	R	R	R	3a, 3e, 3f, 5a, 6, 7
37	SC996284	R	R	S	S	R	R	R	S	R	S	S	R	S	3c
38	SC996289	R	R	S	S	R	R	R	S	R	S	S	R	S	3c
39	G39015	R	R	R	R	R	R	S	R	R	S	S	R	R	3e, 3f, 5a, 6, 7, 8, 9
40	G39033	R	R	R	S	R	R	R	R	R	R	S	R	R	1c, 3e, 3f, 5a, 6, 7, 9, 17
41	P92226E2-5-3-2	R	R	R	R	R	R	R	R	R	S	S	R	R	3f, 4b, 5a, 6, 7, 8, 9, 17
42	P961341A3-2-2	S	S	S	S	R	R	R	R	S	S	S	S	S	7

See next page for avirulence/virulence combinations of each isolate. "No virulent isolates" indicates the cultivar or line was resistant (or intermediate) to the isolates tested and therefore has a *Pm* gene or allele (or combination) not represented in the differential set. "No avirulent isolates" indicates the cultivar or line was susceptible to all the isolates tested, and therefore does not contain any of the *Pm* genes or alleles tested. Only one isolate (#8) was avirulent on entry #15 (B980696) and entry #30 (B980006), so the probable presence of any *Pm* gene or allele in these entries is tentative.

200600276

HESSIAN FLY

		Biotype B	Biotype C	Biotype D	Biotype E	Biotype L
1	AGS 2000	1 - 14	0 - 14	0 - 16	2 - 13	0 - 18
2	USG 3209	9 - 7	0 - 16	0 - 18	16 - 2	0 - 16
3	Pioneer 26R61	0 - 14	0 - 15	0 - 14	12 - 0	0 - 14
4	McCormick	0 - 19	0 - 17	0 - 15	4 - 13	0 - 12
5	AR910-9-1	0 - 16	0 - 16	0 - 18	0 - 19	0 - 15
6	NC99-13022	0 - 17	0 - 14	0 - 8	0 - 17	0 - 14
7	VA00W-526	0 - 12	0 - 17	0 - 16	0 - 15	0 - 19
8	VA98W-335	0 - 15	9 - 4	0 - 17	0 - 19	0 - 18
9	VAN98W-342	0 - 12	11 - 2	0 - 15	0 - 16	0 - 13
10	VA98W-631	0 - 15	14 - 2	0 - 19	0 - 17	0 - 16
11	LA9560CA22-1	5 - 11	11 - 0	17 - 0	13 - 0	0 - 14
12	AR93035-4-1	0 - 20	0 - 15	0 - 15	12 - 2	0 - 12
13	SC980890	15 - 0	13 - 0	15 - 0	20 - 0	19 - 0
14	B980582	0 - 16	0 - 13	0 - 14	0 - 16	0 - 13
15	B980696	0 - 19	13 - 1	0 - 13	0 - 18	0 - 19
16	B980416	11 - 2	16 - 0	17 - 0	18 - 0	0 - 18
17	MD71-5	0 - 15	10 - 6	0 - 17	0 - 14	0 - 14
18	TX00D1626	8 - 9	0 - 15	0 - 17	19 - 0	0 - 19
19	TN04-01	0 - 18	0 - 15	0 - 12	0 - 14	0 - 17
20	AW D00-6383	12 - 3	0 - 14	0 - 16	14 - 1	0 - 15
21	AW D00*6874	0 - 14	0 - 15	0 - 16	0 - 14	0 - 19
22	AW D00*6847	0 - 14	0 - 14	0 - 16	0 - 18	0 - 14
23	NC00-15332	0 - 15	0 - 13	0 - 14	14 - 2	0 - 14
24	NC00-15385	0 - 17	0 - 16	0 - 19	0 - 14	0 - 18
25	NC00-15389	0 - 17	0 - 15	0 - 17	1 - 12	0 - 17
26	MD 11-52	0 - 17	0 - 12	0 - 16	3 - 12	0 - 18
27	MV 5-46	0 - 17	0 - 12	0 - 17	0 - 12	0 - 16
28	LA9585D17-2	0 - 13	0 - 11	0 - 12	0 - 13	0 - 13
29	LA925C104-1-3-B-4	0 - 17	0 - 12	0 - 14	0 - 14	0 - 17
30	B980006	0 - 19	0 - 12	0 - 19	0 - 15	0 - 18
31	G/F 951208-2E35	19 - 0	14 - 0	21 - 0	15 - 0	17 - 0
32	G/F 951079-2E31	20 - 0	14 - 0	20 - 0	18 - 0	15 - 0
33	G/F 95652-2E56	0 - 14	0 - 13	0 - 16	17 - 2	0 - 19
34	F/G 95195	0 - 16	0 - 11	0 - 17	14 - 3	0 - 20
35	F/G 951216-2E14	0 - 15	12 - 0	0 - 14	0 - 12	0 - 19
36	F/G 951216-2E26	0 - 17	0 - 9	0 - 16	0 - 16	0 - 20
37	SC996284	13 - 1	0 - 12	15 - 0	16 - 1	16 - 0
38	SC996289	15 - 1	0 - 12	19 - 0	17 - 0	18 - 0
39	G39015	15 - 1	0 - 10	0 - 15	16 - 1	0 - 17
40	G39033	14 - 2	2 - 12	0 - 18	17 - 0	0 - 14
41	P92226E2-5-3-2	12 - 0	0 - 12	13 - 0	15 - 0	14 - 0
42	P961341A3-2-2	0 - 13		12 - 0	13 - 0	0 - 11

LAB NO.		Samples composited from Bay, AR; Stuttgart, AR; DeWitt, AR; Griffin, GA; Newton, MS; Warsaw, VA	MILLING QUALITY SCORE		BAKING QUALITY SCORE		TEST WT. SCORE		SOFT. EQUIV. SCORE		MICRO T.W. LB/BU	
		STANDARD (#2576, AGS 2000)	85.9	A	61.5	C	79.70	B	63.10	C	63.0	
2576	1	AGS 2000	85.9	A	61.5	C	79.70	B	63.10	C	63.0	
2577	2	USG 3209	71.8	B	38.0	F	71.95	B	53.15	D	62.1	
2578	3	Pioneer 26R61	71.2	B	42.3	E	81.56	A	55.39	D	63.3	
2579	4	McCormick	75.1	B	48.5	E	82.74	A	61.94	C	63.4	
2580	5	AR910-9-1	83.6	A	56.5	D	62.10	C	60.25	C	60.9	*
2581	6	NC99-13022	73.8	B	38.0	F	73.44	B	53.25	D	62.3	
2582	7	VA00W-526	81.8	A	46.3	E	77.72	B	47.08	E	62.8	
2583	8	VA98W-335	71.1	B	47.5	E	71.71	B	67.60	C	62.1	
2584	9	VAN98W-342	71.4	B	39.8	F	62.85	C	70.27	B	61.0	*
2585	10	VA98W-631	74.6	B	34.0	F	64.46	C	52.32	D	61.2	*
2586	11	LA9560CA22-1	73.1	B	50.5	D	87.63	A	51.90	D	64.0	
2587	12	AR93035-4-1	82.3	A	13.3	F	78.77	B	28.61	F	62.9	
2588	13	SC980890	67.9	C	43.0	E	64.46	C	63.38	C	61.2	*
2589	14	B980582	71.7	B	46.5	E	79.51	B	55.57	D	63.0	
2590	15	B980696	82.8	A	25.5	F	84.66	A	37.74	F	63.6	
2591	16	B980416	74.1	B	57.0	D	71.77	B	60.59	C	62.1	
2592	17	MD71-5	69.8	C	45.2	E	60.00	D	74.51	B	60.7	*
2593	18	TX00D1626	95.3	A	34.5	F	60.49	C	68.68	C	60.7	*
2594	19	TN04-01	77.3	B	38.5	F	92.15	A	58.61	D	64.5	
2595	20	AW D00-6383	72.6	B	59.5	D	60.99	C	63.73	C	60.8	*
2596	21	AW D00*6874	64.7	C	49.0	E	76.04	B	64.89	C	62.6	
2597	22	AW D00*6847	71.3	B	54.8	D	72.82	B	64.95	C	62.2	
2598	23	NC00-15332	52.6	D	48.3	E	63.71	C	56.27	D	61.1	*
2599	24	NC00-15385	66.3	C	49.2	E	79.33	B	62.77	C	63.0	
2600	25	NC00-15389	62.1	C	49.0	E	80.63	A	61.37	C	63.2	
2601	26	MD 11-52	64.0	C	52.8	D	66.25	C	52.98	D	61.4	*
2602	27	MV 5-46	66.5	C	52.3	D	78.77	B	59.82	D	62.9	
2603	28	LA9585D17-2	74.5	B	51.5	D	74.31	B	56.81	D	62.4	
2604	29	LA925C104-1-3-B-4	69.8	C	47.0	E	79.64	B	64.95	C	63.0	
2605	30	B980006	78.0	B	29.0	F	72.33	B	32.90	F	62.2	
2606	31	G/F 951208-2E35	66.4	C	38.3	F	68.55	C	62.10	C	61.7	*
2607	32	G/F 951079-2E31	69.3	C	40.5	E	79.39	B	50.42	D	63.0	
2608	33	G/F 95652-2E56	63.7	C	54.8	D	70.65	B	54.85	D	62.0	
2609	34	F/G 95195	71.5	B	44.3	E	68.79	C	52.70	D	61.7	*
2610	35	F/G 951216-2E14	76.2	B	44.3	E	82.05	A	60.04	C	63.3	
2611	36	F/G 951216-2E26	74.3	B	40.0	F	80.26	A	58.35	D	63.1	
2612	37	SC996284	71.3	B	34.0	F	84.10	A	68.23	C	63.6	
2613	38	SC996289	66.4	C	37.0	F	74.43	B	65.64	C	62.4	
2614	39	G39015	75.3	B	72.0	B	70.34	B	61.77	C	61.9	
2615	40	G39033	74.9	B	47.8	E	73.13	B	58.17	D	62.3	
2616	41	P92226E2-5-3-2	69.3	C	48.5	E	55.97	D	74.82	B	60.2	Q
2617	42	P961341A3-2-2	66.3	C	58.5	D	62.10	C	54.50	D	60.9	*

ADVANCED NURSERY EVALUATION FOR SOFT WHEAT MILLING AND BAKING QUALITY

	Samples composited from Bay, AR; Stuttgart, AR; DeWitt, AR; Griffin, GA; Newton, MS; Warsaw, VA	SOFT. EQUIV. %		FLOUR YIELD %		FLOUR PROT. %	LACTIC ACID RET'N	COOKIE DIAM. CM.		TOP GR.
	STANDARD (#2576, AGS 2000)	57.2		73.2		9.52	109.3	17.98		3
1	AGS 2000	57.2		73.2	Q	9.52	109.3	17.98		3
2	USG 3209	52.7	*	70.4	Q	8.93	116.8	17.04	Q	3
3	Pioneer 26R61	53.7	*	70.3	Q	10.02	118.1	17.21	Q	2
4	McCormick	56.6		71.1	Q	9.44	126.1	17.46	Q	3
5	AR910-9-1	55.9		72.8		9.26	120.6	17.78		2
6	NC99-13022	52.8	*	70.8	Q	9.65	136.0	17.04	Q	2
7	VA00W-526	50.0	Q	72.4	*	9.34	122.4	17.37	Q	3
8	VA98W-335	59.2		70.3	Q	9.42	112.9	17.42	Q	2
9	VAN98W-342	60.4		70.3	Q	10.08	100.6	17.11	Q	1
10	VA98W-631	52.4	*	71.0	Q	9.11	133.6	16.88	Q	1
11	LA9560CA22-1	52.2	*	70.7	Q	9.54	126.6	17.54	*	2
12	AR93035-4-1	41.8	Q	72.5		9.60	125.0	16.05	Q	2
13	SC980890	57.3		69.6	Q	10.02	139.2	17.24	Q	1
14	B980582	53.8	*	70.4	Q	10.28	130.8	17.38	Q	2
15	B980696	45.8	Q	72.6		9.40	136.5	16.54	Q	1
16	B980416	56.0		70.9	Q	8.92	123.8	17.8		4
17	MD71-5	62.2		70.0	Q	10.10	102.0	17.33	Q	1
18	TX00D1626	59.7		75.1		9.38	114.4	16.9	Q	1
19	TN04-01	55.2		71.5	Q	9.99	112.3	17.06	Q	1
20	AW D00-6383	57.4		70.6	Q	9.02	128.3	17.9		4
21	AW D00*6874	58.0		69.0	Q	9.65	124.4	17.48	Q	3
22	AW D00*6847	58.0		70.3	Q	8.79	128.5	17.71	*	3
23	NC00-15332	54.1		66.6	Q	8.82	112.4	17.45	Q	3
24	NC00-15385	57.0		69.3	Q	9.57	126.6	17.49	Q	1
25	NC00-15389	56.4		68.5	Q	10.01	122.6	17.48	Q	1
26	MD 11-52	52.6	*	68.9	Q	9.38	103.6	17.63	*	3
27	MV 5-46	55.7		69.3	Q	9.35	111.7	17.61	*	2
28	LA9585D17-2	54.4		70.9	Q	9.89	105.2	17.58	*	1
29	LA925C104-1-3-B-4	58.0		70.0	Q	9.47	152.0	17.4	Q	2
30	B980006	43.7	Q	71.7	*	9.45	139.6	16.68	Q	2
31	G/F 951208-2E35	56.7		69.3	Q	9.14	133.0	17.05	Q	2
32	G/F 951079-2E31	51.5	*	69.9	Q	9.39	137.6	17.14	Q	1
33	G/F 95652-2E56	53.5	*	68.8	Q	8.87	142.1	17.71	*	3
34	F/G 95195	52.5	*	70.4	Q	9.54	124.4	17.29	Q	2
35	F/G 951216-2E14	55.8		71.3	Q	9.56	137.0	17.29	Q	2
36	F/G 951216-2E26	55.0		70.9	Q	9.74	140.3	17.12	Q	1
37	SC996284	59.4		70.3	Q	9.64	143.3	16.88	Q	1
38	SC996289	58.3		69.3	Q	9.59	141.5	17	Q	1
39	G39015	56.6		71.1	Q	9.05	120.7	18.4		6
40	G39033	55.0		71.0	Q	9.40	126.3	17.43	Q	3
41	P92226E2-5-3-2	62.4		69.9	Q	8.65	138.0	17.46	Q	3
42	P961341A3-2-2	53.3	*	69.3	Q	9.28	92.6	17.86		4

Pullman
WA

200600276

		% severity	IT 0-2-5-8
1	AGS 2000	90	8
2	USG 3209	80	8
3	Pioneer 26R61	2	8
4	McCormick	40	8
5	AR910-9-1	20	8
6	NC99-13022	60	5
7	VA00W-526	2	8
8	VA98W-335	100	8
9	VAN98W-342	100	8
10	VA98W-631	80	8
11	LA9560CA22-1	70	8
12	AR93035-4-1	80	8
13	SC980890	100	8
14	B980582	90	8
15	B980696	0	0
16	B980416	100	8
17	MD71-5	100	8
18	TX00D1626	100	8
19	TN04-01	100	8
20	AW D00-6383	100	8
21	AW D00*6874	2	8
22	AW D00*6847	20	8
23	NC00-15332	40	8
24	NC00-15385	90	8
25	NC00-15389	90	8
26	MD 11-52	100	8
27	MV 5-46	100	8
28	LA9585D17-2	100	8
29	LA925C104-1-3-B-4	90	8
30	B980006	80	5
31	G/F 951208-2E35	2	8
32	G/F 951079-2E31	5	8
33	G/F 95652-2E56	5	8
34	F/G 95195	50	8
35	F/G 951216-2E14	2	8
36	F/G 951216-2E26	2	8
37	SC996284	50	8
38	SC996289	70	8
39	G39015	30	8
40	G39033	20	8
41	P92226E2-5-3-2	10	8
42	P961341A3-2-2	90	8
LOCATION MEANS		58.6	7.7
GROWTH STAGE / DATE		30-Jun	30-Jun

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued *(7 U.S.C. 2421)*. The information is held confidential until the certificate is issued *(7 U.S.C. 2426)*.

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
University of Georgia Research Foundation, Inc.	GA951079-2E31	951079-2E31

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(Include area code)*	6. FAX *(Include area code)*
University of Georgia Research Foundation, Inc. 627 Boyd Graduate Studies Research Center Athens, GA 30602-7411	(706) 542-1404	(706) 542-3837

7. PVPO NUMBER 200600276

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. **If no, please explain.** ☑ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or a U.S. based company? **If no, give name of country.** ☑ YES ☐ NO

10. Is the applicant the original owner? ☐ YES ☑ NO **If no, please answer one of the following:**

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?
☑ YES ☐ NO **If no, give name of country**

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?
☐ YES ☐ NO **If no, give name of country**

11. Additional explanation on ownership *(Trace ownership from original breeder to current owner. Use the reverse for extra space if needed)*:

SEE ATTACHED

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 0.1 hour per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provide and employer.

EXHIBIT E
UNIVERSITY OF GEORGIA RESEARCH FOUNDATION, INC.
APPLICATION FOR 951079-2E31
ADDITIONAL EXPLANATION OF OWNERSHIP

The variety for which plant variety protection is hereby sought was developed by Jerry Johnson and G. David Buntin employees at The University of Georgia Agricultural Experiment Stations. The Georgia Agricultural Experiment Stations are a part of The University of Georgia. The University of Georgia is one of the universities of The University System of Georgia. The Board of Regents of the University System of Georgia ("Board of Regents") is a body that was created by the Constitution of the State of Georgia. The University of Georgia Research Foundation, Inc. is a Georgia nonprofit corporation. It was incorporated, among other things, to won and exploit intellectual property developed or created at The University of Georgia. On June 9, 1982 the Board of Regents approved a Patent Policy regarding inventions and discoveries by persons employed at The University of Georgia. As an employee at The University of Georgia Agricultural Experiment Stations, Jerry Johnson and G. David Buntin are subject to said Patent Policy. Rights in novel plant varieties developed at The University of Georgia, including 951079-2E31 are covered by said Patent Policy. By agreement, the Board of Regents assigned to The University of Georgia Research Foundation, Inc. all rights in intellectual property covered by said Patent Policy. This agreement applies to then existing intellectual property and to intellectual property which was developed thereafter.

REPRODUCE LOCALLY. Include form number and date on all reproductions.

Form Approved OMB NO 0581-0055

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 5 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, sexual orientation, marital or family status, political beliefs, parental status, or protected genetic information. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

EXHIBIT F
DECLARATION REGARDING DEPOSIT

NAME OF OWNER (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	TEMPORARY OR EXPERIMENTAL DESIGNATION
Univeristy of Georgia Research Foundation, Inc.	627 Boyd Graduate Studies Research Center Athens, GA 30602-7411	GA951079-2E31
		VARIETY NAME 951079-2E31
NAME OF OWNER REPRESENTATIVE (S)	ADDRESS *(Street and No. or RD No., City, State, and Zip Code and Country)*	FOR OFFICIAL USE ONLY
John Ingle Robert Fincher	627 Boyd Graduate Studies Research Center Athens, GA 30602-7411	PVPO NUMBER 200600276

I do hereby declare that during the life of the certificate a viable sample of propagating material of the subject variety will be deposited, and replenished as needed periodically, in a public repository in the United States in accordance with the regulations established by the Plant Variety Protection Office.

Robert R. Fincher
Signature

August 3, 2006
Date